

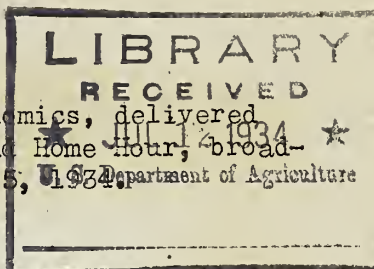
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Home Canning -- a few more dos and don'ts.

A radio talk by Miss Ruth Van Deman, Bureau of Home Economics, delivered in the Department of Agriculture period of the National Farm and Home Hour, broadcast by a network of 50 associate NBC stations, Thursday, July 5, 1934, Department of Agriculture



MR. SALISBURY: Miss Van Deman, we're glad to have you back after your trip to the convention of the American Home Economics Association. That must have been a great gathering.

MISS VAN DEMAN: Yes, it was the largest home economics convention ever held.

MR. SALISBURY: How many were there?

MISS VAN DEMAN: Almost 2,000 -- just 1,995 to be exact, and I think every State in the Union was represented. There were homemakers, teachers, research workers, and home economics people connected with business. And everybody was talking about "the place of the consumer in the new economic order."

MR. SALISBURY: Was that the theme song of the meeting, so to speak?

MISS VAN DEMAN: It certainly was. Consumers are speaking right up these days and asking for definite facts about the quality of goods before buying, and asserting themselves in lots of ways. As I heard remarked again and again "The consumer ain't so dumb."

MR. SALISBURY: Say, Miss Van Deman, talking about consumer education, when are you going to give us those facts on buying men's shirts you promised us?

MISS VAN DEMAN: Sometime soon. Sorry I can't today, but that talk two weeks ago about vitamins in canned foods stirred up a lot of questions that need answers right now while the canning season is in full swing.

Questions about oven canning come from all over. A homemaker up in New York State wants to know whether she can process her beans, peas, and other non-acid vegetables in the electric oven just as well as in a steam pressure canner. And somebody in Pennsylvania asks what about oven-canning with a coal stove with a thermometer on the oven door.

The answer is this: No, don't risk processing peas, beans, corn, and other non-acid vegetables or meats in the oven. The oven method compares with the water-bath method, though it takes much longer. It doesn't give the high temperatures of the steam pressure method. I know it may seem odd, but even though the temperature of your oven may be 350° or 400°F., or even 500°F., the temperature of the food inside the cans which you are processing, will not go a bit higher than it will in a boiling water bath. Or to put it another way, when you are canning foods in the oven, the temperature of the food as you watch it boiling inside the jars will be around 212° F. (the boiling point of water) no matter what the oven thermometer reads. This is all-right for fruits and tomatoes, which are juicy and acid, and easy to sterilize, but not for the non-acid vegetables. Many of them, such as corn, beans, and peas, are not only non-acid but starchy and rather dry. Heat penetrates these non-acid vegetables slowly. It is difficult to kill the bacteria in them unless you use temperatures higher than the 212° F. of boiling water.

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The pressure canner, is a simple device for getting high temperatures quickly. For example if you are living at sea level or up to about 2,000 feet elevation, and your canner registers 5 pounds of steam pressure, then you should have a temperature of 228° F. in the canner. Ten pounds pressure is equivalent to 240° F., 15 pounds to 250° F. Take sweet corn, cream style, for example. Even with this intense heat, at 15 pounds pressure, you need to keep pint glass jars of corn in the pressure canner for 1 hour and 15 minutes to be sure the corn is sterilized thoroughly. Maybe if you kept your corn processing in the oven for hours and hours and hours on end you might accomplish the same result in one way, but you'd certainly cook all the good flavor and nice texture out of the corn in the meantime.

I've talked longer than I meant to about oven canning, but I know it's a question that bothers lots of home canners. They can't see why if the temperature of the oven goes to 350° F. the food in the jars isn't hotter than 212° F. But it isn't, and if you doubt me just put a thermometer in a jar while you're canning and see for yourself.

By the way, there's an excellent article summarizing all of the studies on the bacteriology of home canning in the June-July issue of the journal of Home Economics. The article is by Prof. F. W. Tanner of the University of Illinois. He goes into the scientific whys and wherefores. If you happen to be demonstrating home-canning or have studied the subject in college, you may want to look this article up in your public library. Anyway, let me read you three of Professor Tanner's conclusions in his own words:

"The boiling-water process for non-acid foods and meats should be abandoned as a wasteful, dangerous method.

"Oven processing of non-acid foods should be abandoned since it results in preserved foods which will not keep.

"The steam-pressure cooker should be used for non-acid foods. No other method should be used."

That's all I'm going to quote from Professor Tanner. You can see he doesn't take any half-way stand about what method to use in canning non-acid vegetables. Now, just a word about the difference altitude makes in home canning. A letter came to me from Colorado the other day that read this way "way out here in the heart of the Rockies at an altitude of 8,000 feet we hear your talks. I wish to can many vegetables this year, but it is difficult to keep them here."

Well, as my Colorado friend probably knows the altitude is what causes her trouble. The atmosphere up in her mountain home is so light that though water boils, it isn't as hot as it is at sea level. And altitude may be playing havoc with the gauge on her pressure canner. So she has trouble in processing her canned foods, that is in getting them hot enough for a long enough time, to kill the bacteria that make the canned foods spoil later. I sent the Colorado homemaker printed time tables for home canning and directions for changing them to suit her altitude. And I'll be glad to do the same for any one else who has a question on home canning. Write to me if I can be of service to you. And Goodbye for this time.